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SHELF STABLE FOOD PRODUCT AND MIX KIT

This application claims the benefit of U.S. Provisional Application No.

60/243,505, filed October 26, 2000.

FIELD OF THE INVENTION

[0001] The present invention relates to shelf stable food products and mix kits, and more particularly to shelf stable food products and mix kits that provide for the food product to be stored in a non-refrigerated environment.

BACKGROUND OF THE INVENTION

[0002] Food products and mix kits of various types which require a minimum amount of purchaser preparation are common items in grocery store refrigerator and freezer sections. Examples include pizzas, pancakes, desserts and frozen dinners. Such products are typically purchased by consumers who do not want to spend a lot of time preparing foods to eat. Consumers, however, expect an easy way to prepare food product to be fresh in appearance and texture and, most importantly, to taste good.

[0003] Existing refrigerated and frozen food products and mix kits have some inherent disadvantages. One of the disadvantages with refrigerated food products and mix kits is that they either tend to require more preparation time than the consumer wants to spend, they do not maintain the food at a quality level that the consumer expects and/or they do not taste good.

[0004] For example, pastry shells or pastry crust tend to lose their distinct taste and crispiness when they are refrigerated or frozen. Another disadvantage is that they can only be stored in a refrigeration case for a matter of days and in a freezer case for a matter of a few months before they become unsuitable for consumption.

[0005] The present invention overcomes these and other problems inherent in existing food products and mix kits. The present invention provides a food product and mix kit that is shelf stable and does not require refrigeration.

[0006] The principal object of the present invention is to provide an improved shelf stable food product and mix kit that maintains a consistent texture, freshness and crispiness of the food product.

[0007] Another object of the present invention is to provide a novel shelf stable food product and mix kit that requires minimal preparation by the consumer.

[0008] Still another object of the present invention is to provide a novel shelf stable food product and mix kit that is compact in nature and does not require more than a minimal amount of shelf space in a store.

[0009] A further object of the present invention is to provide a novel shelf stable food product and mix kit which is simple in design and inexpensive to construct, and is durable and rugged in structure so as to withstand damage during shipping and handling.

[0010] Still further objects and advantages will become apparent from a consideration of the ensuing description and drawings of the invention.

[0011] These and other objects are achieved by a shelf stable food product and mix kit of the present invention. In one form of the invention, a shelf stable food product and mix kit is provided which comprises a packaged food product, such as cannoli shells and filler, which normally require refrigeration, in a kit form that can be stored in a non-refrigerated environment. Also, the invention provides for the packaged food product to retain a consistent texture, to remain dry and crispy until used by the consumer.

[0012] One embodiment of the invention may include a storage container and a cover. Stored inside the container and protected by the cover may be shells and a dry filler. In use, the user may add water to the filler thereby creating a wet mixture. Then, after preparing the mixture according to instructions, the user may add the desired amount of wet mixture into the shells. The user may then follow the specific instructions for final preparations of the food products, for example, cannoli. Other embodiments of the present invention may substitute, for example, pasta shells for cannoli shells and may substitute dried cheese filler for cannoli filler.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1 is a top view of one embodiment of the shelf stable food product and mix kit of the present invention; and

[0014] FIG. 2 is a side view of the shelf stable food product and mix kit of FIG. 1.

[0015] FIG. 3 is top view of the shelf stable food product and mix kit of FIG. 1 shown inside a box with a portion of the box cut away.

DETAILED DESCRIPTION OF THE INVENTION

[0016] FIG. 1 is a top view of one embodiment of the shelf stable food product and mix kit 10 constructed in accordance with the present invention. As shown in Fig. 1, one embodiment of the invention may include a storage container 14, a cover 18, shells 22, and a shell filler 26 which may be stored in a filler container 28.

[0017] In one embodiment, the container 14 may be constructed as shown in Figs 1 and 2. The container 14 may be substantially rectangular with a bottom planar portion 16 and sides 17 following the perimeter of the bottom portion 16 and forming a compartment 19. Compartment 19 may be formed so it is deep enough to receive the shells 22 and filler 26 within filler container 28 as best shown in FIG. 2. In alternate embodiments, more than one compartment 19 may be provided by including additional sides 17 that extend across at least a portion of compartment 19 thereby dividing compartment 19 into multiple sections. In one embodiment, the container 14 may be constructed of a durable plastic, cardboard, waxed board or any other type of material that will provide for proper operation of the invention and provide for a durable construction so that the container 14 can withstand normal shipping and handling conditions. The container 14 may also be any other type of a device that can store the shells 22 and filler 26 and to provide a substantially air tight seal for the food product.

[0018] To provide for freshness of the food product contained in container 14, the compartment 19 may be covered with a flexible cover 18. The cover 18 may be constructed of a thin transparent or opaque film. The film may be single or multi-layer and may be made of polyester, nylon, polyethylene or polypropylene. The film may attached to the container 14 by shrink-wrapping, use of adhesives, some type of mechanical fastener or by any other way that will provide for proper operation of the invention. The cover 18 may also consist of a rigid sheet that is formed to fit over compartment 19 so as to provide for a freshness seal. The rigid sheet

may be comprised of polyester, nylon, polyethylene or propylene or some other type of material that will provide for proper operation of the invention.

[0019] The shells 22 may be, for example, cannoli shells. The cannoli shells do not require refrigeration and may be stored on a non-refrigerated shelf until the mix kit 10 is prepared for consumption. The shelf life for the cannoli shells and filler 26 may, if stored under appropriate conditions, be over one year. The filler 26 may be, for example, cannoli filler provided in a dry powdered form. To use the filler 26, the user may simply add water to the filler 26 and mix the filler 26 to the appropriate consistency as required by the instructions provided with the kit 10. Other embodiments of the present invention may substitute, for example, pasta noodles or shells, such as lasagna noodles, jumbo shells and manicotti shells, for cannoli shells and may substitute dried cheese filler for cannoli filler.

[0020] An even further objective of the present invention is to provide dried filler mixture having excellent room temperature shelf storage stability, which tastes like traditional ricotta cheese filler and can be utilized in a variety of Italian dishes.

[0021] Typically, traditional cheese fillers require refrigeration and are usually prepared as a fresh or frozen product. In one embodiment of the invention, by employing selected amounts of dried ricotta or reduced fat ricotta, a dry filler mix is made which can easily be rehydrated within a few minutes, before use. Further, unlike traditional cheese fillers, the dried filler mix of the present invention requires no refrigeration before reconstitution, and also has a longer shelf life and lower risk of microbial attack while in storage.

[0022] The present invention provides a dry powdered cheese filler mix which may be reconstituted with water or milk to provide a cheese product based on ricotta cheese, however but not limited to ricotta, as the cheese component. Ricotta cheese is a well-known, distinctive type of cheese, which is manufactured by a process which involves the use of high temperature cooking of the curd. High temperature heating used in the manufacture of ricotta cheese provides curd with a characteristic cooked, caramel flavor. Ricotta cheese may be made from various milk and milk fractions and in one embodiment of the present invention utilizes a dry reduced fat ricotta cheese, which is sold in bulk as an industrial material under the trademark ReCotta™ by Foremost Farms. The dried reduced fat ricotta may be prepared by conventional cheese making processes and in one embodiment of the invention the reduced fat ricotta, e.g.

ReCotta TM cheese mix, is made from whey, sweet cream, food starch-such as modified food starch, and citric acid which is subsequently dried using conventional drying methods.

[0023] The dried reduced fat ricotta cheese filler mix, of the present invention, may be combined with a variety of different shelf stable, edible ingredients and is easily reconstituted to provide a reduced fat ricotta cheese mix which has the appearance, flavor and texture of natural reduced fat ricotta cheese. The dried reduced fat ricotta cheese filler mix has a moisture level which is less than about 3.5%, the filler composition remaining microbiologically stable, has a pH of about 5.9 and a shelf life of at least 9 months and requires no refrigeration prior to reconstitution.

[0024] In one embodiment of the invention, the dried filler mix may be comprised of a selected amount of dried reduced fat ricotta, such as ReCotta TM cheese mix, in combination with sugar or artificial sweetener and chocolate to produce a sweetened dried filler mix. The reduced fat dried ricotta, is usually present in an amount of from 42 to 72% of the total weight of the mix, preferably 52 to 62% and more preferably 57% of the total weight of the mix. Additionally, the dried filler mix includes, but is not limited to sugar or artificial sweetener in an amount of from 14 to 44% of the total weight of the mix, preferably 24 to 34% and more preferably 29% of the total weight of the mix, and chocolate morsels or an equivalent chocolate substitute, in an amount of from 4 to 24% of the total weight of the mix, preferably 10 to 18 %, and more preferably 14% of the total weight of the mix.

[0025] Additional ingredients may be included in the dry filler mix as long as they can be shelf stable. The additional ingredients that may be added include, but are not limited to white chocolate chips, sugar, chocolate morsels, cocoa, fruits, nuts, candy, salt, pepper, parsley, basil, herbs, dried eggs and spices. If desired, flavoring may be added to the dried filler mix, particularly, any flavoring agent, which is edible, and shelf stable may be added to the mix. In yet other embodiments, other shelf stable dry filler mixes may be used that include some, all or none of the ingredients described herein. For example, where the mix kit 10 comprises pasta noodles or pasta shells as or in place of shells 22, the filler may consist of dried ricotta cheese, such as the dried reduced ricotta cheese filler mix heretofore described, and spices and flavors, but not sweeteners, namely such spices as salt, pepper, parsley and basil, and additional ingredients such as dried eggs.

[0026] Thus, the dried filler mix of the present invention may be suited, but is not limited to use in tiramisu, lasagna, manicotti, ravioli, tortellini and gnocchi, as well as for use in cheesecakes and tarts.

[0027] Once a desired dried filler mix has been prepared, it may be reconstituted with water, preferably 1-cup water (hot or cold) or milk to approximately 5 to 6 ounces of dried filler mix. The dried filler mix is blended and mixed until a homogeneously blended consistency is attained. After being reconstituted with water or milk, the filler mix is refrigerated for a few minutes, preferably 2-15 minutes, and more preferably 5-10 minutes. After refrigeration, the sweetened ricotta filler mix is immediately ready to be used as filling in desserts, such as cannoli shells.

[0028] In one embodiment, the filler container 28 may be a bag. To provide for freshness and dryness of the filler 26 in one embodiment, the bag may be comprised of thin, flexible transparent or opaque sheet. The bag may be single or multi-layer and may be made of, for example, polyester, nylon, polyethylene or polypropylene. The bag may be sealed by heat sealing, Zip-Lock™ closure or some other type of fastener or process that will provide for maintaining a sealed bag and for proper operation of the invention.

[0029] As shown in FIG. 3, in another embodiment, the kit 10 may be inserted into a sleeve 34. In yet other embodiments, the container 14 may be fitted with a panel on the cover 18, or bottom portion 16 or sides 17. These devices may serve the purpose of providing a substrate for written product information and advertising, for providing protection for the container 14 during handling and/or providing a means for the container to stand upright for display on a shelf. The container 14 may fit snugly within the sleeve 34 so that the container 14 will not slide out of the sleeve 34 during normal handling conditions. In yet another embodiment, the sleeve 34 may have three or four sides instead of two sides. In still other embodiments, mix kit 10 may be designed in bulk form or separate components for industrial and/or institutional purchasers.

[0030] The invention provides for a consumer to purchase a packaged food product such as cannoli, which normally requires refrigeration, in a kit form that can be stored in a non-refrigerated environment. Also, the invention provides for the packaged food product to remain dry and crispy until used by the consumer. One embodiment of the invention may contain cannoli shells and cannoli filler. In use, the user may pour the filler 26 into a mixing

bowl, add water or milk to the filler 26 and mix until the filler 26 is smooth and creamy thereby creating a wet filler mixture. The filler mixture may then be refrigerated for five to ten minutes before filling the mixture into the cannoli shells. Then, the user may use the bag 28 to fill the shells 22, for example, the user may put the filler mixture into the bag 28 and cut off one corner of the bag 28. The user may then squeeze the bag 28 and put the desired amount of wet mixture into the shells 22. The user may also decide to spoon fill the mixture into the cannoli shells. The user may then follow the specific instructions for final preparations of the cannoli, for example, adding nuts or candy to the cannoli ends and/or dusting the shells 22 with powdered sugar. Other embodiments of the present invention may substitute, for example, pasta shells for cannoli shells and may substitute dried cheese filler for cannoli filler.

[0031] Yet still other embodiments of the invention may consist of a mix kit 10 for tiramisu. One embodiment of the tiramisu mix kit 10 may include a storage container which may also be used during preparation of the tiramisu or a separate preparation and storage container may be provided, a cover, one or more lady fingers or other types of cookies, a package of espresso, a package of cocoa powder and/or filler mix which may be stored in a filler container.

[0032] In use, in one embodiment, the user may empty contents of the filler mix into a bowl, add water or milk to the mix until the filler is smooth and creamy. Then, the user may add the contents of the espresso package to water or milk as required and stir to dissolve the espresso. The user may then arrange half of the lady fingers in a tray (or dish) in a single row. Using approximately half the espresso, the user may spoon it evenly over the lady fingers and spoon half of the filler mix on top of the lady fingers. Then the user may put the remaining lady fingers on top of the filler mix (already applied) and add a second layer of espresso mix and a second layer of filler mix on top of the espresso mix, dust top of tiramisu with cocoa powder and serve. In yet other embodiments, mix kit 10 may be modified to include the necessary ingredients for lasagna, manicotti, ravioli, tortellini, gnocchi, cheesecakes, tarts and other food or desert dishes.

[0033] In other embodiments, the mix kits 10 may include dry, frozen or refrigerated pasta such as, for example, lasagna noodles, jumbo shells, manicotti shells, etc. These mix kits may include everything necessary to complete a stuffed pasta dish including but not limited to sauce, meat sauce, vegetables, cheese, mozzarella cheese, baking tray and other

items. In yet other embodiments of the mix kit 10, all components necessary to complete the meal are provided with no excess waste of ingredients.

[0034] Specific embodiments of novel methods and apparatus for construction of novel shelf stable food products and mix kits according to the present invention have been described for the purpose of illustrating the manner in which the invention is made and used. It should be understood that the implementation of other variations and modifications of the invention and its various aspects will be apparent to one skilled in the art, and that the invention is not limited by the specific embodiments described. Therefore, it is contemplated to cover the present invention any and all modifications, variations, or equivalents that fall within the true spirit and scope of the basic underlying principles disclosed and claimed herein.